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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,640

06/05/2006

Hendrik Josephus Goossens

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BRIARCLIFF MANOR, NY 10510

EXAMINER

LEE, NICHOLAS J

ART UNIT

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4134

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,640	<b>Applicant(s)</b> GOOSSENS ET AL.	
	<b>Examiner</b> NICHOLAS LEE	<b>Art Unit</b> 4134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 6/5/2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/5/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1, 2, and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6418097 B1 to Schell ET al ("Schell").

As to claim 1, Schell discloses an optical disc apparatus comprising: an optical system (Fig. 4b, 24) comprised of a displaceable element (52) and a detector (60; Fig. 102a; col. 170, lines 1-5); an actuator system (Fig. 2, 20) comprised of at least one controllable actuator (23) that controls the displaceable element (col. 11, lines 19-25); a control system (Fig. 5, col. 19, lines 32-36; abstract) used for receiving and processing a read signal from a detector and generating a control signal for the actuator system on the basis of at least one error signal(col. 34, lines 8-9; col. 8, lines 4-6). The control system is dependent on variable factors in which recalibration is performed generate a servo signal. The control system which comprises a digital signal processor is used to analyze a signal to determine factors such as temperature, media type, and etc. to calibrate the servo signal (col. 89, lines 23-28).

As to claim 2, Schell further discloses that a digital signal that is normalized to the sum signal output (col. 12, lines 45-51).

As to claim 11, Schell discloses an optical disc apparatus comprising: a signal processor (Fig. 5, 116) for processing a signal and generating an error signal and a control signal; a controller (119), part of a servo error signal circuit, that is comprised of multiple inputs, wherein the multiple inputs are connected to multiple detection outputs of a detection device, that generates a servo error signal (col. 12, lines 36-41) ; a controllable switch having first and second inputs each having a multiple inputs connected to the multiple detection outputs of the detection device (col. 12, lines 50-54; lines 59-61) The detection device connected to the servo error signal which generates and outputs a servo error signal (col. 12, lines 65-68; col. 13, lines 1-5).

As to claim 11, the same rejection or discussion is used in the rejection of claim 10.

As to claim 12, the same rejection or discussion is used in the rejection of claim 1.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103 (a) as being unpatentable over US Patent No. 6418097 B1 to Schell ET al ("Schell") in view of US Patent No. 4,703,468 to Baba ("Baba").

As to claim 3, Schell fails to disclose an optical disc apparatus wherein a control system is designed to detect disc defects on the basis of the results of a said frequency analysis, and to set its settings on the basis of the classification of a detected defect.

Baba discloses an optical disc apparatus comprised of a tracking servo circuit that detects an upper or lower envelop of an RF signal and produces a detection signal, which is used to adjust the settings of the tracking servo circuit (claim 1).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Schell with the teachings of Baba to create an optical disc apparatus that can operate efficiently with vibrations caused by defects or external disturbances to maintain accurate tracking of the optical pickup (col. 2, lines 45-52).

5. Claim 4 is rejected under 35 U.S.C. 103 (a) as being unpatentable over US Patent No. 6418097 B1 to Schell ET al ("Schell") in view of US Patent No. 4,703,468 to Baba ("Baba"), and further in view of US Patent no. 5,909,414 to Ohta ("Ohta").

As to claim 4, see the discussion of Schell and Baba above. Schell as modified fails to disclose an optical disc apparatus with a second setting if it detects a short disc defect and a third setting if it detects a long disc defect.

Ohta discloses an optical information reproducing apparatus that detects large and small sized defects (col. 14, lines 50-53; Fig. 17; Fig. 15). Ohta further discloses that the detection of these defects allows the apparatus to reduce the probability of stoppage caused during recording or reproducing operation (col. 14, lines 38-48).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Schell as modified with the teachings of Ohta to create an apparatus able to detect short and long defects wherein applying settings to reduce stoppage to have continuous recording or reproducing (col. 14, lines 38-48).

6. Claim 5 is rejected under 35 U.S.C. 103 (a) as being unpatentable over US Patent No. 6418097 B1 to Schell ET al ("Schell") in view of US Patent No. 6,097,880 to Koyata ("Koyata").

As to claim 5, see the discussion of Schell above. Schell fails to disclose a frequency analysis of a control system to be a time-frequency analysis.

Koyata discloses a digital signal processing apparatus used in an optical disc apparatus that analyzes in a plurality of time-frequency two-dimensional blocks (claim 3, lines 8-9; col. 16, lines 10-15).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Schell with the teachings of Koyata to create an optical disc apparatus the uses a time-frequency analysis in detecting defects more efficiently to generate a servo signal.

7. Claim 6 is rejected under 35 U.S.C. 103 (a) as being unpatentable over US Patent No. 6418097 B1 to Schell ET al ("Schell") in view of US Patent No. 6,097,880 to Koyata ("Koyata"), and further in view of US 2005/0149598 A1 to Mendlovic et al ("Mendlovic")..

As to claim 6, see the discussion of Schell and Koyota above. Schell as modified fails to disclose a frequency analysis of a control system to be a time-frequency analysis.

Mendlovic discloses a method of performing optical processing which includes discrete wavelet transforms as means for processing and signal (§ 0010).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Schell as modified with the teachings of Mendlovic to create an optical disc apparatus the uses a discrete wavelet analysis in detecting defects more efficiently to generate a servo signal.

8. Claims 7-9 are rejected under 35 U.S.C. 103 (a) as being unpatentable over US Patent No. 6418097 B1 to Schell ET al ("Schell") in view of US Patent No. 6,097,880 to

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Koyata ("Koyata") and US 2005/0149598 A1 to Mendlovic et al ("Mendlovic"), and further in view of US Patent no. 5,909,414 to Ohta ("Ohta").

As to claims 7-9, see the discussion of Schell, Koyata, and Mendlovic above. Schell discloses that a predetermined threshold is used for detecting defects (col. 9, lines 60-63; col. 136, lines 10-13). The control system which comprises a digital signal processor is used to analyze a signal to determine factors such as temperature, media type, and etc. to calibrate the servo signal (col. 89, lines 23-28). Schell as modified fails to disclose an apparatus that detects either a short or long defects and chooses settings corresponding to the detection of those defects.

Ohta discloses an optical information reproducing apparatus that detects large and small sized defects (col. 14, lines 50-53; Fig. 17; Fig. 15).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Schell as modified with the teachings of Ohta to create an apparatus able to detect short and long defects wherein applying settings to reduce stoppage to have continuous recording or reproducing (col. 14, lines 38-48).

As to claim 8, see claim 7 rejection above. Schell's disclosure of a control system which analyzes a signal to determine a servo signal and detecting defects using a predetermined threshold combined with the teachings of Ohta would make it obvious that given a signal level not beyond a given threshold



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would be analyzed and set servo conditions for normal operation (col. 89, lines 23-28).

As to claim 9, the same rejection or discussion is used in the rejection of claim 7.

9. Claim 10 is rejected under 35 U.S.C. 103 (a) as being unpatentable over US Patent No. 6418097 B1 to Schell ET al ("Schell") in view of US Patent No. 6,301,432 B2 to Miyawaki et al ("Miyawaki").

As to claim 10, see the discussion of Schell above. Schell fails to disclose an optical disc drive apparatus comprised of a plurality of controllers.

Miyawaki discloses an optical recording/reproducing apparatus comprising a plurality of controllers which respond to a control command issued from the system control circuit during reading or writing operations (col. 9, lines 18-24).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Schell as modified with the teachings of Miyawaki to create

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS LEE whose telephone number is (571)270-7354. The examiner can normally be reached on Monday-Friday 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lun-Yi Lao can be reached on 571-272-7671. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NICHOLAS LEE/  
Examiner, Art Unit 4134

/LUN-YI LAO/

Supervisory Patent Examiner, Art Unit 4134